

GENERAL CONVERSION FACTORS FOR COMMON WELDING TERMS			
PROPERTY	TO CONVERT FROM	TO	MULTIPLY BY
area dimensions (mm ²)	in. ²	mm ²	6.451 600x 10 ²
	mm ²	in. ²	1.550 003 x 10 ⁻³
current density	A/in ²	A/mm ²	1.550 003 x 10 ⁻³
	A/mm ²	A/in ²	6.451 600x 10 ²
deposition rate (approximate conversion)	lb/h	kg/h	0.45
electrode force	pound-force	N	4.448 222
	kilogram-force	N	9.806 650
	N	lb/f	2.248 089 x 10 ⁻¹
flow rate (L/min)	ft ³ /h	L/min	4.719 475 x 10 ⁻¹
	gallon per hour	L/min	6.309 020 x 10 ⁻²
	gallon per minute	L/min	3.785 412
	L/min	ft ³ /h	2.118 880
heat input	J/in.	J/m	3.937 008 x 10
	J/m	J/in.	2.540 000 x 10 ⁻²
impact energy	foot pound force	J	1.355 818
linear measurements	in.	mm	2.540 000 x 10
	ft	mm	3.048 000 x 10 ²
	mm	in.	3.937 008 x 10 ⁻²
	mm	ft	3.280 840 x 10 ⁻³
power density	W/in. ²	W/m ²	1.550 003 x 10 ³
	W/mm ²	W/m ²	6.451 600 x 10 ⁻⁴
pressure (gas and liquid)	psi	Pa	6.894 757 x 10 ⁻³
	lb/ft ²	Pa	4.788 026 x 10
	N/mm ²	Pa	1.000 000 x 10 ⁶
	kPa	psi	1.450 377 x 10 ⁻¹
	kPa	lb/ft ²	2.088 543 x 10
	kPa	N/mm ²	1.000 000 x 10 ⁻³
	torr (mm Hg at 0°C)	kPa	1.333 22 x 10 ⁻¹
	Micron (µm Hg at 0oC)	kPa	1.333 22 x 10 ⁻⁴
	kPa	torr	7.500 64 x 10
	kPa	micron	7.500 64 x 10 ³
	tensile strength (MPa)	psi	kPa
lb/ft ²		kPa	4.788 026 x 10 ⁻²
N/mm ²		Mpa	1.000 000
MPa		psi	1.450 377 x 10 ²
MPa		lb/ft ²	2.088 543 x 10 ⁴
MPa		N/mm ²	1.000 000
thermal conductivity (W/(m · K)	Cal/(cm · s · °C)	W/(m · K)	4.184 000 x 10 ²
travel speed, wire feed speed (mm/s)	in./mm	mm/s	4.233 333 x 10 ⁻¹
	mm/s	in./mm	2.362 205